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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|-------------------------|------------------|
| 09/700,240 | 12/12/2000 | Paul Maurice Burling | GJE-01720 | 3687 |
| 7590 | 04/23/2004 | | EXAMINER | |
| MARTIN NOVACK, ESQ. 16355 VINTAGE OAKS LANE DELRAY BEACH, FL 33484 | | | TSOY, ELENA | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1762 | |
| | | | DATE MAILED: 04/23/2004 | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-----------------|-----------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/700,240 | BURLING, PAUL MAURICE |
| Examiner | Art Unit | |
| Elena Tsoy | 1762 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 04 March 2004.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 28-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 28-52 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

| | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>1, 2</u> . | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

1. Amendment filed on March 4, 2004 has been entered. Claims 28-52 are pending in the application.

Declaration

2. The Declaration under 37 CFR 1.132 filed November 12, 2003 is insufficient to overcome the rejection of claims 28-45, 47, 48 based upon Carpenter (GB 693168) in view of Arkhangelsky et al (WO 9610545) as set forth in the last Office action because the features upon which applicant relies (i.e., using a liquid ceramic binder at both stages for coating vermiculite granules and heating coated product at both stages to temperatures not higher than 100 °C for curing/drying, and obtained product having high compressive strength and no loose edges) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Rejection to claims 36-39, 42, 49, 50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention has been withdrawn due to amendment.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 28-45, 47, 48** are rejected under 35 U.S.C. 103(a) as being unpatentable over Carpenter (GB 693168) in view of Arkhangelsky et al (WO 9610545) for the reasons of record as set forth in Paragraph No. 4 of the Office Action mailed on April 28, 2003 (Paper No. 18).

7. **Claims 46, 52** are rejected under 35 U.S.C. 103(a) as being unpatentable over Carpenter (GB 693168) in view of Arkhangelsky et al (WO 9610545), further in view of Slic et al (US 6,230,458) for the reasons of record as set forth in Paragraph No. 5 of the Office Action mailed on April 28, 2003 (Paper No. 18).

8. **Claim 49** is rejected under 35 U.S.C. 103(a) as being unpatentable over Carpenter (GB 693168) in view of Arkhangelsky et al (WO 9610545), further in view of JP 08059370 for the reasons of record as set forth in Paragraph No. 6 of the Office Action mailed on April 28, 2003 (Paper No. 18).

9. **Claim 50** is rejected under 35 U.S.C. 103(a) as being unpatentable over Carpenter (GB 693168) in view of Arkhangelsky et al (WO 9610545), further in view of Stroom et al (US 6,245, 301) for the reasons of record as set forth in Paragraph No. 7 of the Office Action mailed on April 28, 2003 (Paper No. 18).

10. **Claim 51** is rejected under 35 U.S.C. 103(a) as being unpatentable over Carpenter (GB 693168) in view of Arkhangelsky et al (WO 9610545), further in view of Stroom et al (US

6,245, 301), and further in view of Crompton (US 5,082,494) for the reasons of record as set forth in Paragraph No. 8 of the Office Action mailed on April 28, 2003 (Paper No. 18).

Response to Arguments

11. Applicants' arguments filed March 4, 2004 have been fully considered but they are not persuasive.

(A) Applicants argue that claimed invention is not obvious over combination of Carpenter and Arkhangelsky et al because Arkhangelsky et al merely requires that vermiculite has particle size of at least 0.05 mm, and Arkhangelsky et al do not disclose that 60 % of vermiculite must have size of at least 1 mm.

The Examiner respectfully disagrees with this argument. First of all, nowhere in the specification, Applicants show that the use of vermiculite, 60 % of which have size of at least 1 mm, provides unexpected results compared to the use of vermiculite, less than 60 % of which have size of at least 1 mm. Secondly, Arkhangelsky et al do not limit particle size to 0.05 mm. Arkhangelsky et al teach that lesser size requires much more of coating material due to difficulties of wetting small particles with coating material which leads to higher cost (See page 4, lines 1-6). Accordingly, one of ordinary skill in the art at would have been motivated to use particles, 100 % of which have particle size of at least 1 mm, or 5 mm, or more, than to use particles, 100 % of which have particle size of less than 1 mm, because in latter case, it would cost much more. Therefore, the choice is clear: the coarser vermiculate the better.

(B) Applicants argue that claimed invention is distinguished from that of Carpenter as Carpenter requires melting sodium silicate binder whereas claimed invention requires

drying/curing the binder. Curing is distinct from melting in which a solid changes phase to a liquid, but remains the same material, i.e. undergoes no chemical change.

The Examiner respectfully disagrees with this argument. If sodium silicate of claimed invention undergoes chemical change at 100 $^{\circ}$ C, sodium silicate of Carpenter would definitely undergo chemical change at temperature higher than 100 $^{\circ}$ C because sodium silicate first would reach curing temperature 100 $^{\circ}$ C before melting.

Secondly, in contrast to Declaration, Carpenter controls temperature of heating process by controlling speed of passing a mixture of vermiculite with sodium silicate so that **right amount of microscopic** cavities or cells of sodium silicate and expansion occurs (See page 1, lines 21-44).

And again, the features upon which applicant relies (i.e., using a liquid ceramic binder at both stages for coating vermiculite granules and heating coated product at both stages to temperatures not higher than 100 $^{\circ}$ C for curing/drying, and obtained product having high compressive strength and no loose edges) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is (571) 272-1429. The examiner can normally be reached on Mo-Thur. 9:00-7:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Elena Tsoy
Examiner
Art Unit 1762

April 8, 2004